

Work Order ID 72036

Monday, July 18, 2011 10:02:57 AM



Page 1

Item ID: D206-642-541

Accept



Setup Start



Revision ID:

Stop



Item Name: Replacement Skidtube

Start Date: 7/18/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 7/29/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D3274

D

IIN-D206-642

Rev M

100

0.00



DOCUMENT CONTROL

DC

0.00

Memo

Document Control.

Photocopy bluefile & type labels per PPP D206-642-541

CHG003

N/A CK 11/08/12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Sequence ID/
Work Center ID

Operation
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Set Up/
Run Hours

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Plan
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Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

110

0.00



Skidtubes

Skidtubes

Memo

0.00

VERIFY AND INSPECT THE MATERIAL PRIOR TO USE

1- Bend FWD end of tube using bend prog D3274 FWD and foil 10 as per dwg D3274, cut fwd end of tube with saw table setup D3274.

2- remove fwd indexing ridge as per dwg D3274. Prepare for welding

3- weld fwd cap as per dwg D3274 and OSI004

AR Aluminum Rod Batch:

4- grind fwd cap weld on top surface only

5- Cut AFT end of tube at 170.9" as per dwg D3274 and deburr end.

6-Drill Aft cap pilot hole using DT8025

7 -Cleco DT8025 in position and install pilot hole drill jig DT8742A.B.C.D.
Drill 3/16" pilot holes as per Dwg D3274

8 -Remove inner indexing ridge on aft end of skidtube as per Dwg D3274 scribe batch #

9 -Open aft end cap holes to Ø0.208" as per Dwg D3274. Deburr aft end.

DP

11-5-26

4/05/30.

BE 11/06/02

BE 11/06/02

BE 11/06/15

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Tooling: Date:

QC: Date:

SPC (Y/N): Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

114

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

8 u106/15

116

QC10- Inspect visual per QSI004- ground welds

0.00



QC

Memo

0.00

Quality Control

8 u106/15

120

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

B 11/08/07

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Approvals: Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

1 8 BE 11/08/09

150

Skidtubes

0.00



Skidtubes

Memo

0.00

Skidtubes

1-Open Ø0.313" and 0.375" crossbolt spacer holes as per Dwg D3274

2-Deburr crossbolt spacer holes as per Dwg D3274 and blow out chips from inside the tube

3-Bond web in place as per Dwg D3274 & QSI 015.

A/R Sikaflex-291

Sikaflex expire date:

Start: 11/08/09

Time: 3:40

Finish:

Time:

(Adhere for 12 hours)

3 11/08/09

3 11/08/09

W/O:		WORK ORDER CHANGES					
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Reference:

Approvals: Process Plan: Date:

Tooling: Date:

Run Start



QC: Date:

SPC (Y/N): Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

1 0 BE 11/08/10

170

Skidtubes

0.00



Skidtubes

Memo

0.00

Skidtubes

1-Bend AFT end of tube using bend prog. D3274 AFT as per dwg D3274. Install drop pins in crossbolt spacer holes to maintain web position.

2- DRILL PILOT HOLES FOR WEARPLATES USING D3274-1T2
OPEN HOLES TO .297" . Deburr3-DRILL TOE PIN HOLE .640" DIA AS PER DWG USING DT8935 FWD
END OF TUBE
DEBURR INSIDE OF HOLE AS NECESSARY (DO NOT ENLARGE HOLES)
REMOVE ANY FOREIGN OBJECTS INSIDE OF TUBES

4- Countersink crossbolt spacer holes as per Dwg D3274

5- prepare for welding

BE 11/08/10

BE 11/08/10 BE 11/08/10

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Customer:

Reference:

Run Start



Approvals: Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

180



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

DP

11-8-10

190



Skidtubes

Skidtubes

Skidtubes

Memo

0.00

0.00

1-Insert D2649 & D3275-1 crossbolt spacers. Weld as per QSI 004 and Dwg D3274. Remember to back drill each hole before welding the other side. Use aluminum rod

A/R || Aluminum Rod

M12860

BE 11/08/10

3-Grind cross bolt welds flush as per Dwg D3274.

BE 11/08/10

4-Counterbore 5/16" x 0.750" deep as per Dwg D3274 and deburr.

BE 11/08/10

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QC: Date:

Tooling: Date:

SPC (Y/N): Date:

Run Start

Stop

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

200

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

210

QC10- Inspect visual per QSI004- ground welds

0.00



QC

Memo

0.00

Quality Control

220

Pressure Wash per QSI005 4.3

0.00



HandFinish

Memo

0.00

Hand Finishing

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch



Setup Start



Stop



Cust Item ID:

Customer:



8uloslu

8uloslu

(SL)

IX Ø m, 7/20/08/11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Reference:

Run Start



Approvals: Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID Tool # Plan Code Accept Qty Reject Qty Reject Number Insp. Stamp

230

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



11/18/349

Powdercoat

Memo

0.00

Powder Coating

START TIME: 11:30A~
OVEN TEMPERATURE: 320°-
FINISH TIME: 12:00P~

240

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

IX Ø m.f 11/08/11

250

HandFinishing

0.00



HandFinish

Memo

0.00

Hand Finishing

1-Install Nut Plate as per Dwg D3274. Apply LPS-3 to Nut Plate and rivets.
A/R: N/A LPS-3

M109956

2-Install inserts as per Dwg D3274. Use a drop of Sikaflex inside insert holes a
A/R: Sikaflex-291
Sikaflex expire date:

M117516

01/15

IX Ø m.f 11/08/11

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Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

260



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

Inspect Nut Plate & Inserts

0.00

S wlosky



270



HandFinish

Hand Finishing

HAND FINISHING RESOURCE #1

0.00

Memo

1-Install wearpads & gaskets as per Dwg D3274.

0.00

2-Install ring as per Dwg D3274

A/R: Sikaflex-291

Sikaflex expire date:

3-Inspect for foreign objects as per QSI 024

4-Spray inside of tube on both sides of web with LPS-3

A/R LPS-3 Batch:

5-Install Aft Cap and seal with Sikaflex. Clean excess adhesive.

A/R Sikaflex-291

Sikaflex expire date:

M117516
01/15

N/A

M117516
01/15

1X m-k 11/08/11

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Reference:

Run Start



Approvals: Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

280

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

5 wlosly



Quality Control

290

Identify as per dwg & Stock Location: _____

0.00



Packaging

Memo

PM 72036

0.00

Payoff 2

Packaging

300

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

CK 11/08/12
MF

Quality Control

W/O:		WORK ORDER CHANGES					
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NOTE: Date & initial all entries

Picklist Print

Monday, July 18, 2011 10:02:51 AM

Page 1

Work Order ID: 72036

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube



Start Date: 7/18/2011

Required Date: 7/29/2011

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:B 05.09.231 Revised per D206-642 Rev. J KJ/JLM
 IPP Rev:C 07-02-23 Added SS Wearplates & Gaskets JLM
 IPP Rev:D 07-12-06 replace NAS1515H3L to D3672-1 DD
 IPP Rev:E 08-04-17 as per PAR 08-015 DD verified by:EC
 IPP Rev:F 08-06-02 add comment DD verified by:EC
 IPP Rev:G 08-10-09 revise details DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2600-1-190 Extrusion Round 3" 206		Manufactured	No			110	Each	33.4000	1				
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				HALL				33.4					
				59874				33.4					
D3285-1 Cap		Manufactured	No			110	Each	102.0000	1				
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				LG002				102					
				52511				55					
				52647				47					
D3282-041 Float Web (2061,407)		Manufactured	No			150	Each	0.0000	1				
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				B69715									

① 11-5-26

B/E 4/08/02

① 11/08/09 *

W/O:		WORK ORDER CHANGES					
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Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

Page 2

8

Start Date: 7/18/2011

Required Date: 7/29/2011

Start Qty: 1.00

Required Qty: 1.00

D2649 Manufactured No 190 Each 109.0000 12 12



Cross Bolt Spacer



BE 11/08/10

Location Loc Qty Loc Code

LG	97	
68224	2	
71355	95	
LG001	12	
65317	1	
68507	11	

12

D3275-1 Manufactured No 190 Each 239.0000 12 12



Crossbolt Spacer



BE 11/08/10

Location Loc Qty Loc Code

LG002	239	
66930	106	
68946	72	
70688	61	

12

CR3212-4-03 Purchased No 250 Each 1,192.000 2 2



Cherry Rivet



mk 11/08/11

Location Loc Qty Loc Code

FP-B	2	
110139	2	
ST311	1190	
114859	1190	

2x

Monday, July 18, 2011 10:02:52 AM

Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
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Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube



Start Date: 7/18/2011

Required Date: 7/29/2011

Start Qty: 1.00

Required Qty: 1.00

D3415-041 Manufactured No

250 Each

60.0000 1 1



Nut Plate

Location

Loc Qty

Loc Code

ST053

60

33842 ✓

16

67605

44

1x

CCR264SS3-3 Purchased No

250 Each

517.0000 2 2



Cherry Rivet

Location

Loc Qty

Loc Code

FP-B

2

113973

2

ST311

515

117086 ✓

57

117849

458

2x

ALS4-1032-130 Purchased No

250 Each

2,266.000 78 78



Insert

Location

Loc Qty

Loc Code

ST281

8

117331

8

ST282

2258

117717

258

118237

1744

118312

256

M118237

78x

m-f 11/08/11

m-f 11/08/11

m-f 11/08/11

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Shop Packet Print

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Page 4

8

Start Date: 7/18/2011

Required Date: 7/29/2011

Start Qty: 1.00

Required Qty: 1.00

D3536-15

Manufactured No

270 Each

24.0000



Gasket

Location

Loc Qty

Loc Code

FP011

24

66559 ✓

11

71586

13



m-l 11/08/11

IX

D3536-23

Manufactured No

270 Each

36.0000



Gasket

Location

Loc Qty

Loc Code

FP011

36

43406

1

69902 ✓

23

71579

12



m-l 11/08/11

IX

D3536-35

Manufactured No

270 Each

28.0000



Gasket

Location

Loc Qty

Loc Code

FP012

28

69755 ✓

14

71587

14



m-l 11/08/11

IX

D3536-39

Manufactured No

270 Each

31.0000



Gasket

Location

Loc Qty

Loc Code

FP015

31

66241 ✓

5

69760

26



m-l 11/08/11

IX

Monday, July 18, 2011 10:02:54 AM

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Page 4

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Monday, July 18, 2011 10:02:54 AM

Page 5

Work Order ID: 72036

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 7/18/2011

Required Date: 7/29/2011

Start Qty: 1.00

Required Qty: 1.00

D3535-15

Manufactured No

270

Each

23.0000



Wearshoe

Location

Loc Qty

Loc Code

FP018

23

66558 ✓

3

68358 ✓

6

69931

14



m-l 11/08/11

D3535-35

Manufactured No

270

Each

29.0000



Wearshoe

Location

Loc Qty

Loc Code

FP018

14

65926

1

67598

1

70815

12

ST

15

69756 ✓

15



m-l 11/08/11

D3535-39

Manufactured No

270

Each

17.0000



Wearshoe

Location

Loc Qty

Loc Code

FP018

17

64076 ✓

4

69759

13



m-l 11/08/11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Monday, July 18, 2011 10:02:54 AM

Page 6

Work Order ID: 72036

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 7/18/2011

Required Date: 7/29/2011

Start Qty: 1.00

Required Qty: 1.00

D3535-23

Manufactured No

270

Each

36.0000

1

1



Wearshoe

Location

Loc Qty

Loc Code

FP021

36

68342

8

70818

16

71581

12

m-p 11/08/11

1X

D3537-3

Manufactured No

270

Each

3.0000

1

1



Wearpad

Location

Loc Qty

Loc Code

FP017

3

35697

1

70817

2

70481

m-p 11/08/11

1X

D3537-1

Manufactured No

270

Each

19.0000

9

9



Wearpad

Location

Loc Qty

Loc Code

FP017

19

69817

5

70686

14

71574

m-p 11/08/11

9X

AN960C10L

NAS1149C0332
R

Purchased

No

270

Each

0.0000

80

80



washer

M 118306



80X m-p 11/08/11

AN960C416

NAS1149C0463
R

Purchased

No

270

Each

0.0000

1

1



washer

M 115358



1X m-p 11/08/11

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Page 6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Monday, July 18, 2011 10:02:54 AM

Work Order ID: 72036

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

Page 7

4

D3672-1



Phenolic Washer

Manufactured

No

270

Each

920.0000

2

2

Start Date: 7/18/2011

Required Date: 7/29/2011

Start Qty: 1.00

Required Qty: 1.00



m.k 11/08/11

WAS1515 H3L

Location

Loc Qty

Loc Code

ST074

918

64177

418

66821

500

M 113362

2x

ST077

2

52505

2

1,552.000

80

80



m.k 11/08/11

AN3C4A

Purchased

No

270

Each

BOLT

Location

Loc Qty

Loc Code

ST350

1552

117313

2

117688

488

117795

500

117872

22

118012

500

118112

40

80x

AN4C5A

Purchased

No

270

Each

506.0000

1

1

BOLT

Location

Loc Qty

Loc Code

FP-B

108

112243

108

ST345

398

112243

398

m.k 11/08/11

1x

Monday, July 18, 2011 10:02:54 AM

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Page 7

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Monday, July 18, 2011 10:02:54 AM

Work Order ID: 72036

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube



Start Date: 7/18/2011

Required Date: 7/29/2011

Start Qty: 1.00

Required Qty: 1.00

D2646

Manufactured

No

270

Each

73.0000

1

1



Aft Cap



m-11/08/11

Location

Loc Qty

Loc Code

FP004

58

68280 ✓

58

FP006

5

62678

5

FP-4

1

70945

1

fp5

9

71038

9

D3413-1

Manufactured

No

270

Each

41.0000

1

1



Ring



m-11/08/11

Location

Loc Qty

Loc Code

ST420

39

62961 ✓

4

66387

4

70773

25

71041

6

ST473

2

66945

2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART

RELEASED

07.02.12

DEO ATTACHED

DESIGN CP	DRAWN BY PH	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D3274	REV. D SHEET 1 OF 4
DATE 06.12.19		TITLE SKIDTUBE ASSEMBLY	SCALE NTS
A	04.03.15	NEW ISSUE	
B	04.08.09	MOVE SADDLE HOLE: 42.14 WAS 42.76	
C	05.03.16	ADD -043; NEW INSERTS	
D	06.12.19	NEW INSERTS, SS WEARSHOE + GASKET	

Qty -041	Qty -043	Part Number	Description
X		D3274-041	SKIDTUBE ASSEMBLY
	X	D3274-043	SKIDTUBE ASSEMBLY
1	1	D2600-1-240	EXTRUSION
1	1	D2646	AFT CAP
12	12	D2649	CROSS BOLT SPACER
12	37	D3275-1	CROSS BOLT SPACER
1	1	D3282-041	FLOAT WEB
1	1	D3285-1	CAP
1	1	D3413-1	RING
1	1	D3415-041	NUT PLATE
1	1	D3535-15	WEARSHOE
1	1	D3535-23	WEARSHOE
1	1	D3535-35	WEARSHOE
1	1	D3535-39	WEARSHOE
1	1	D3536-15	GASKET
1	1	D3536-23	GASKET
1	1	D3536-35	GASKET
1	1	D3536-39	GASKET
9	9	D3537-1	WEARPAD
1	1	D3537-3	WEARPAD
78	78	ALS7-1032-130	INSERT (or AKS4-1032-130, ALS4-1032-130, AELS-1032-130)
80	80	AN3C4A	BOLT
1	1	AN4C5A	BOLT
1	1	AN960C416	WASHER
80	80	AN960C10L	WASHER
2	2	CCR264SS3-3	RIVET
2	2	CR3212-4-03	RIVET
2	2	NAS1515H3L	WASHER

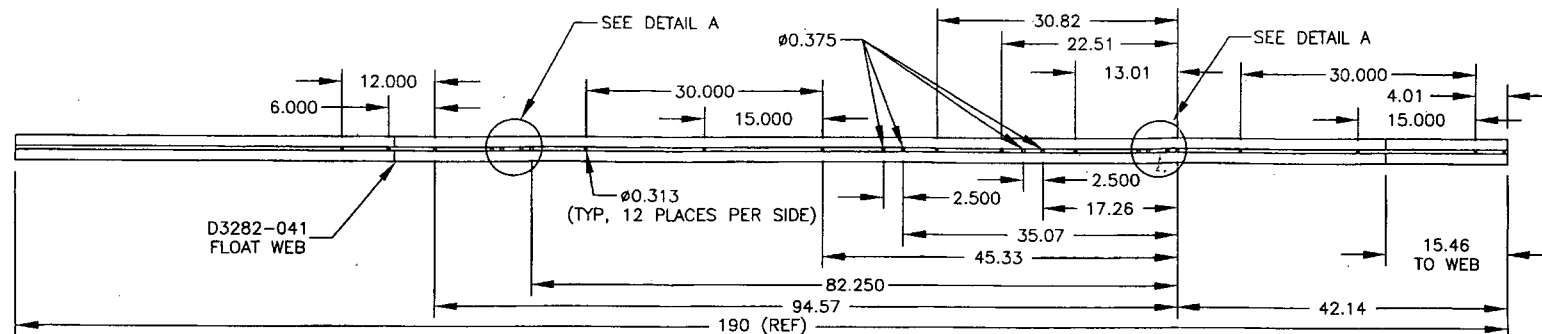
GENERAL NOTES:

1. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
2. DAMAGE TOLERANCE ON FWD BEND:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 7 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
3. ALL HOLES DRILLED ON CENTERLINES.
4. BOND D3282-041 FLOAT WEB INTO D3274-1/-3 OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/291 ADHESIVE PER DART QSI 015. ENSURE HOLES LINE-UP.
5. WELDING TO BE DONE PER DART QSI 004.
6. FINISH: - ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1
- POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
7. DRILL Ø0.297 HOLES FOR ALS7-1032-130 INSERTS USING DT3274-1T2 BEFORE FINISH. INSTALL ALS7-1032-130 INSERTS AFTER FINISH. SEAL WEARSHOE BOLTS WITH SIKAFLEX -241/-291.
8. SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.

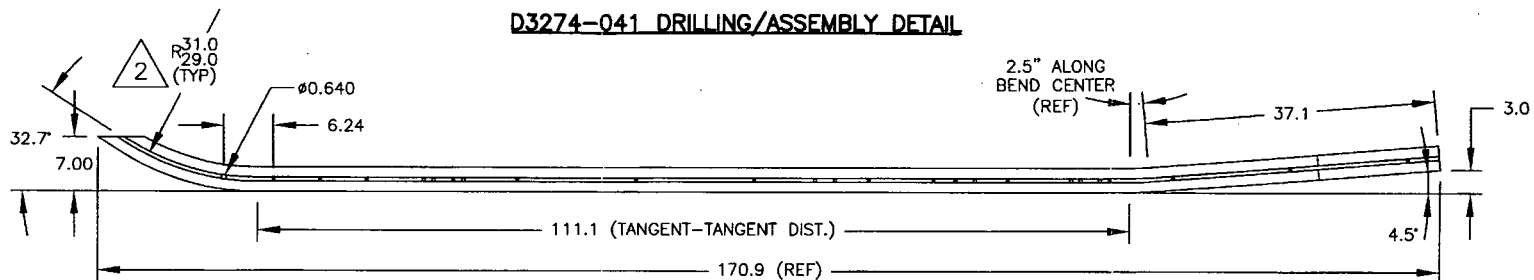
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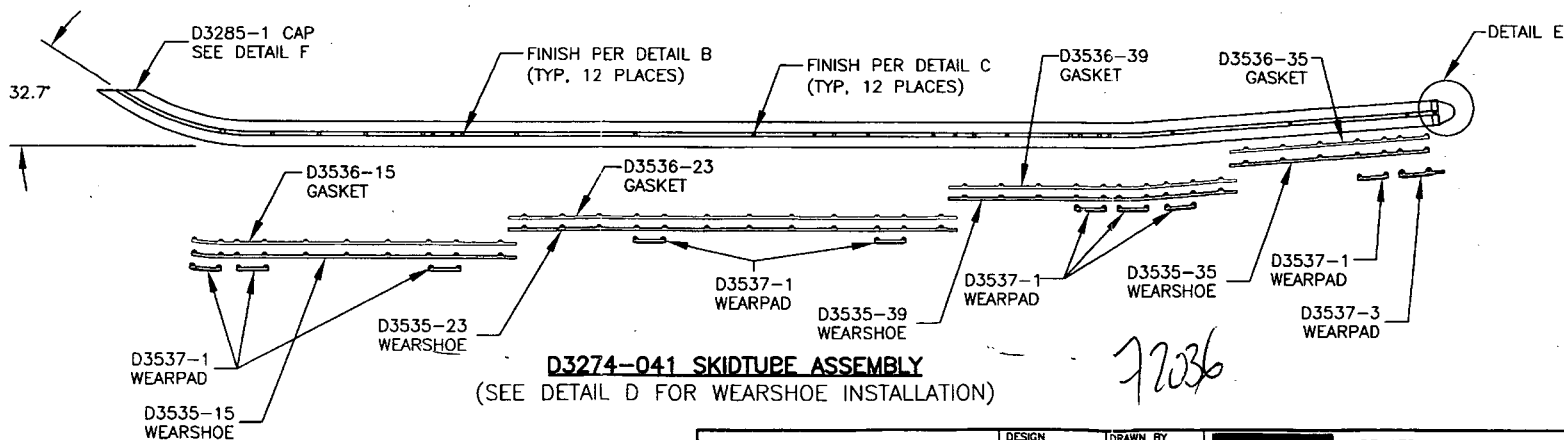
DEO ATTACHED



D3274-041 DRILLING/ASSEMBLY DETAIL



D3274-041 BEND/DRILLING DETAIL



D3274-041 SKIDTUBE ASSEMBLY
(SEE DETAIL D FOR WEARSHOE INSTALLATION)

RELEASED

07.02.12

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CP

DRAWN BY

PH

CHECKED

#

APPROVED

#

DART AEROSPACE USA, INC.

PORT HADLOCK, WA

DATE

06.12.19

DRAWING NO.

D3274

TITLE

SKIDTUBE ASSEMBLY

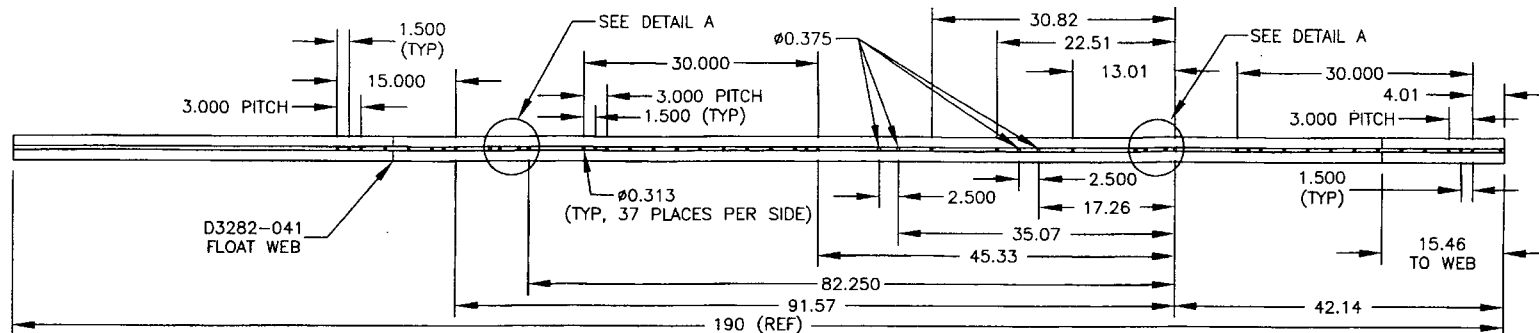
REV. D

SHEET 2 OF 4

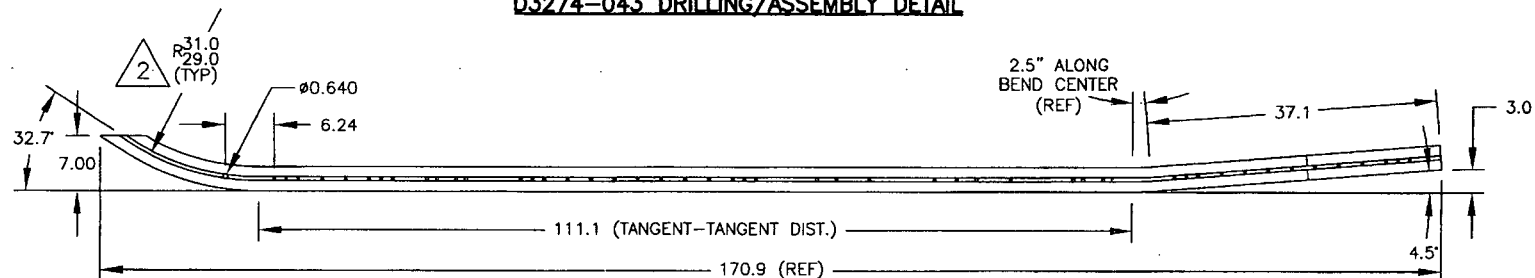
SCALE

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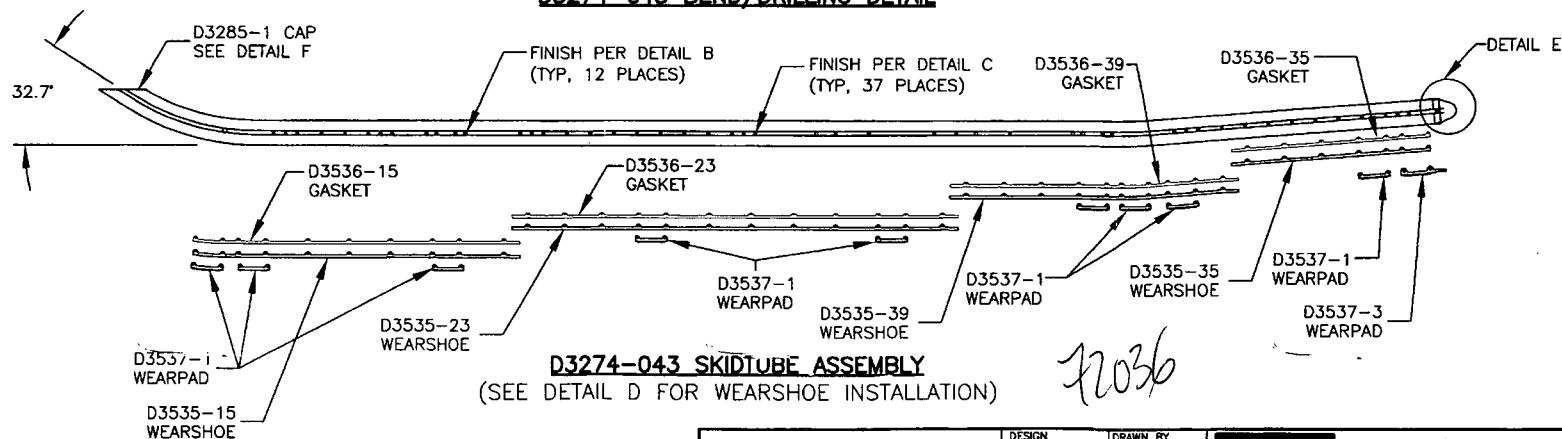
DEO ATTACHED



D3274-043 DRILLING/ASSEMBLY DETAIL



D3274-043 BEND/DRILLING DETAIL



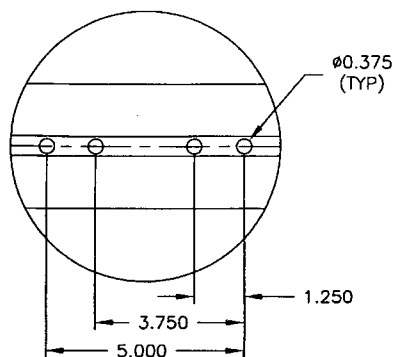
D3274-043 SKIDTUBE ASSEMBLY
(SEE DETAIL D FOR WEARSHOE INSTALLATION)

RELEASED

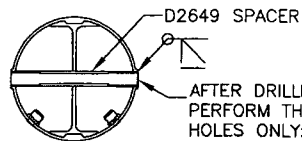
07.02.12

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CHECKED	DATE	CP	PH	DRAWING NO.	REV. D
#	06.12.19	#	#	D3274	SHEET 3 OF 4
TITLE				SCALE	
SKIDTUBE ASSEMBLY				1:15	

DETAIL A: DRILL DETAIL

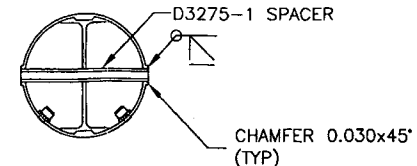


DETAIL B FOR Ø0.375 HOLES ONLY

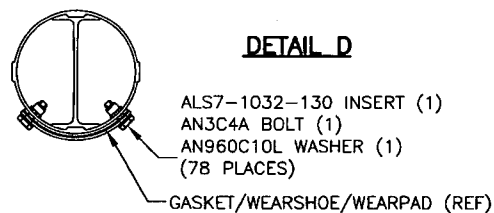


- AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.375
HOLES ONLY:
1. CHAMFER HOLE 0.030x45°
 2. INSERT D2649 SPACER
 3. WELD INTO PLACE AND GRIND FLUSH
 4. C'BORE TO Ø0.313x0.75 DEEP

DETAIL C FOR Ø0.313 HOLES ONLY



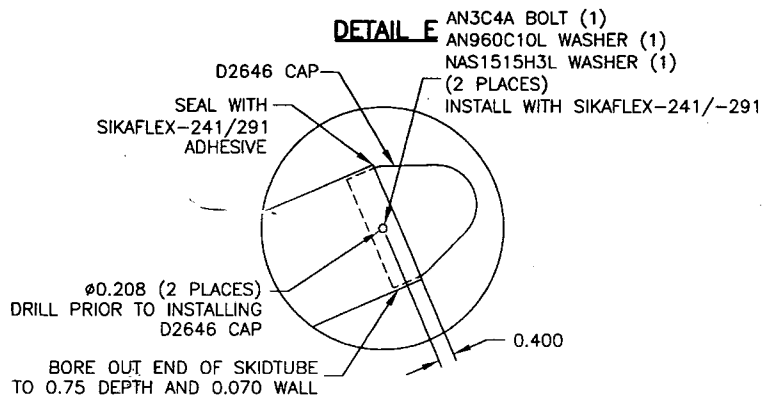
DETAIL D



- ALS7-1032-130 INSERT (1)
AN3C4A BOLT (1)
AN960C10L WASHER (1)
(78 PLACES)

GASKET/WEARSHOE/WEARPAD (REF)

DETAIL E



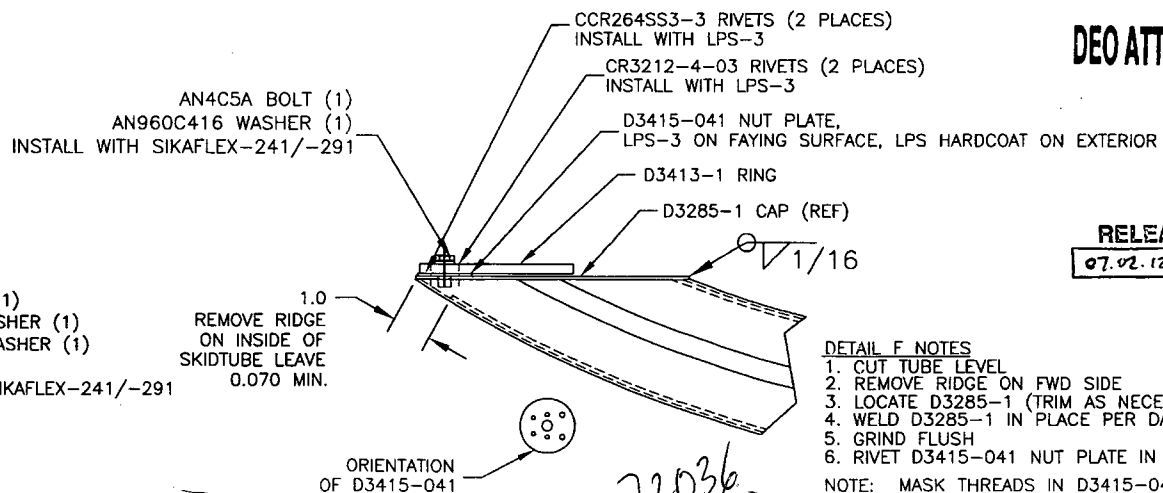
- AN3C4A BOLT (1)
AN960C10L WASHER (1)
NAS1515H3L WASHER (1)
(2 PLACES)
INSTALL WITH SIKAFLEX-241/-291

D2646 CAP
SEAL WITH
SIKAFLEX-241/291
ADHESIVE

Ø0.208 (2 PLACES)
DRILL PRIOR TO INSTALLING
D2646 CAP

BORE OUT END OF SKIDTUBE
TO 0.75 DEPTH AND 0.070 WALL

DETAIL F: END FINISHING DETAIL



1.0
REMOVE RIDGE
ON INSIDE OF
SKIDTUBE LEAVE
0.070 MIN.

ORIENTATION
OF D3415-041

DEO ATTACHED

RELEASED
07.02.12

DETAIL F NOTES

1. CUT TUBE LEVEL
2. REMOVE RIDGE ON FWD SIDE
3. LOCATE D3285-1 (TRIM AS NECESSARY)
4. WELD D3285-1 IN PLACE PER DART QSI 004
5. GRIND FLUSH
6. RIVET D3415-041 NUT PLATE IN PLACE

NOTE: MASK THREADS IN D3415-041
PRIOR TO FINISH

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CP

DRAWN BY

PH

CHECKED

#

APPROVED

#

DATE

06.12.19

DART DART AEROSPACE USA, INC.

PORT HADLOCK, WA

DRAWING NO.

D3274

REV. D

SHEET 4 OF 4

TITLE

SKIDTUBE ASSEMBLY

SCALE

1:3

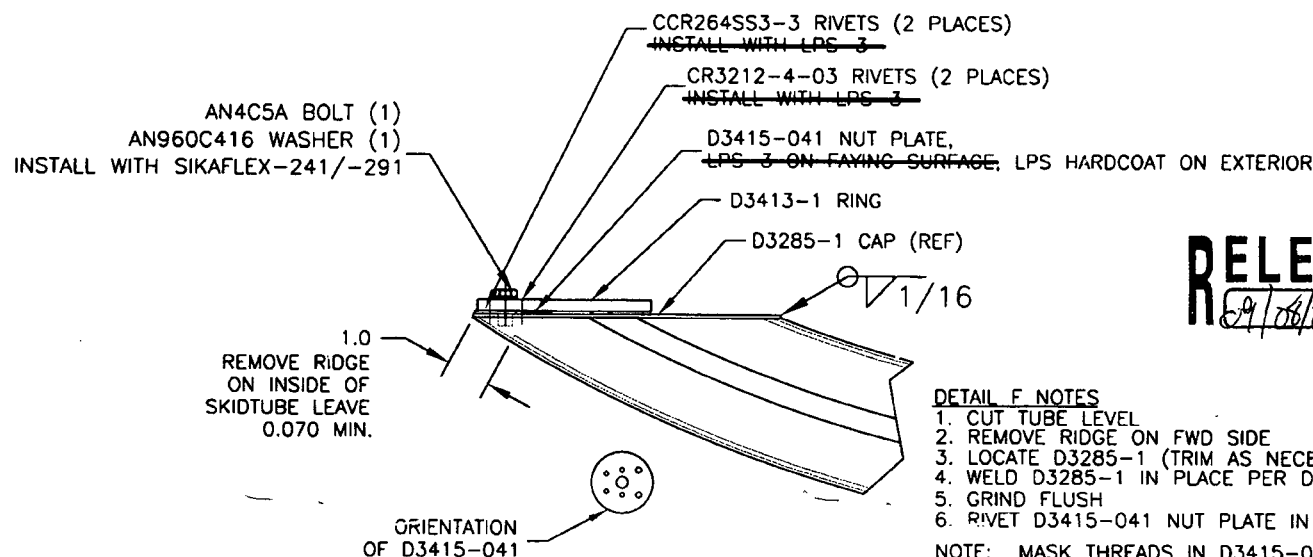
DRAWING NO. D3274	TITLE SKIDTUBE ASSEMBLY	REV. D	DART AEROSPACE USA, INC ENGINEERING ORDER	D.E.O. NO. D3274-D-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>CP</i>	CHECKED <i>[Signature]</i>	MFG. APPR. <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DE APPR. <i>[Signature]</i>		
DATE 09.06.17	DATE 09.06.23	DATE 09/06/23	DATE 09/06/23	DATE 09.06.23		

LPS-3 IS NO LONGER USED DURING ASSEMBLY OF SKIDTUBE.

AMEND NOTE 8: ~~"SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES 'LPS-3' AFTER FINISH AND INSTALLATION OF INSERTS.~~
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES 'LPS PROCYON' AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
POWDER COATING WITH MEK DEGREASER."

AMEND DETAIL F AS SHOWN:

DETAIL F: END FINISHING DETAIL



DETAIL F NOTES

1. CUT TUBE LEVEL
2. REMOVE RIDGE ON FWD SIDE
3. LOCATE D3285-1 (TRIM AS NECESSARY)
4. WELD D3285-1 IN PLACE PER DART QSI 004
5. GRIND FLUSH
6. RIVET D3415-041 NUT PLATE IN PLACE

NOTE: MASK THREADS IN D3415-041
PRIOR TO FINISH

72036

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NO. 261

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: B6949
Part number: D206 642 541
Description: 206
Welding Process: Tig[☒] Mig[]
Base material: Aluminum
Current: AC[☒] DC[]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[]
Penetration: pass[☒] fail[]

UNACCEPTABLE

Cracks: pass[☒] fail[]
Undercut: pass[☒] fail[]
Pin holes: pass[☒] fail[]
Overlap (cold lap): pass[☒] fail[]
Porosity (surface): pass[☒] fail[]
Coloration: pass[☒] fail[]

Qualifier Sal Summ Date of Test Coupon 11-08-11

Welder Barclay Elliott Date of Test Coupon 11-08-11

The above named individual is qualified in accordance with AWS D17.1.2001 to weld